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MAR 10 1965



Dairy-Herd-Improvement Letter

ARS-44-152  
(Vol. 40, No. 8)

November-December 1964

### DHIA COWS AVERAGE 11,685 POUNDS OF MILK

In 1963-64, DHIA cows produced 11,685 pounds of milk and 447 pounds of butterfat on a cow-year basis. This record level of production was made by 1,746,475 cows in 35,689 herds averaging 49.4 cows per herd. It is an increase of 1.6 cows per herd, and 399 pounds of milk and 13 pounds of butterfat per cow over 1962-63.

### DHIA COWS EXCEED NON-DHIA COWS BY 4,258 POUNDS OF MILK

The importance of DHIA recordkeeping continues to be increasingly evident. In 1963, DHIA cows were superior in milk yield to non-DHIA cows by 61 percent, or 4,258 pounds. With milk in DHIA herds valued at \$4.50 per hundredweight, this amounts to a yearly gross income advantage of \$192 per cow and \$9,600 per 50-cow herd.

During the 3-year period since 1960, yearly increases in milk yield per cow have been 242 pounds in DHIA and 141 pounds in all other herds. Thus in addition to the 4,258 pounds superiority in milk yield in 1963, the rate of increase has been 72 percent more rapid for DHIA cows since 1960. Such statistics clearly demonstrate the importance of, and results from, participation in DHIA recordkeeping. A summary of the production performance of cows in DHIA and non-DHIA herds in the United States is shown in Table 1.

Issued February 1965

# DHIA STANDARD SUMMARIES 1963-64

Table 2 provides a 10-year summary of DHIA cow-year averages for herds reporting complete information. In 1963-64, 1,173,099 cows from herds with complete reports averaged 11,428 pounds of milk and 439 pounds of butterfat. They were fed an average of 4,200 pounds of concentrates, 9,800 pounds of succulent forage, 3,800 pounds of dry forage, and were on pasture 151 days. They produced a product valued at \$521 (\$4.56 per cwt.), were fed at an estimated cost of \$237, and returned an estimated \$284 over feed cost. Shown below is a summary of the 10-year change since 1954-55.

	10-year change from 1954-55 to 1963-64	
	Gross change	Percent change
Cows per herd	+ 13.5 cows	+47.2
Per cow		
Milk yield	+2,167 pounds	+23.4
Butterfat percentage	- .10 points	- 2.5
Butterfat yield	+ 74 pounds	+20.3
Concentrates fed	+1,400 pounds	+50.0
Succulent forage fed	+3,800 pounds	+63.3
Dry forage fed	+ 100 pounds	+ 2.7
Time on pasture	- 27 days	-15.2
Value of product	+ 92 dollars	+21.4
Price per cwt. of milk	- 7 dollars	- 1.5
Cost of concentrates	+ 31 dollars	+34.8
Feed cost	+ 54 dollars	+29.5
Income over feed cost <u>1/</u>	+ 38 dollars	+15.4

1/ Most of the change represented occurred during the first 5 years.

Summaries of DHIA Standard herd statistics for 1963-64 are shown in Tables 3 through 8. Cow-year averages for each State reporting production data are shown in Table 3 and for each State having complete reports in Table 4.

Stratifications of herd averages by level of butterfat production, concentrates fed, and feed cost per cwt. of milk are given in Tables 5, 6, and 7, respectively. The trends apparent in these tabulations should be interpreted with caution because of the confounding effects resulting from disproportionate representation of breeds, milk prices, and feeding systems and costs.

Within-breed stratifications of DHIA herd averages by milk yield are shown in Table 8. Breeds are tabulated separately in order to reduce the complicating effect of breed-to-breed differences in production and feed and milk prices. Such tabulations are useful in establishing guidelines for production efficiency, especially within breeds. On the basis of the long-established thumb rule that profitable production can be realized only if income more than doubles feed cost, milk production levels below which profit will not be expected under average conditions in the United States are shown below.

Breed	Production level at which income at least doubles feed cost		
	Minimum milk level	Herds not exceeding minimum level	
	(Pounds)	(Number)	(Percent)
Ayrshire	8,000	50	9.6
Guernsey	6,300	74	3.3
Holstein	8,400	513	2.5
Jersey	5,100	37	2.3
Brown Swiss	8,500	72	11.2
Milking Shorthorn <u>1/</u>	8,400	65	<u>1/</u> 54.2

1/ Only 120 Milking Shorthorn herds represented.

Only 3.0 percent of the DHIA herds produced less than the milk levels indicated above. Approximately 1,695 herds (6 percent) reported income over feed cost of less than \$200 per cow while 9,351 herds (34 percent) reported values of \$300 or more. However, if it is assumed that milk production levels of 7,000 pounds per cow are minimal for profit among herds at large, upwards of 50 percent of the cows which are not enrolled in DHIA are marginal or sub-marginal producers.

In the Holstein herds summarized in Table 8, estimated income over feed cost increased approximately \$32 per cow for each 1,000-pound increase in milk production. As herds increased from 8,000 to 16,000 pounds in milk yield, feed cost increased 63 percent, feed cost per cwt. of milk decreased 17 percent, and income over feed cost increased 125 percent. Similar although slightly less-pronounced trends are evident in the other breeds.

A further summary is shown below for the Holstein data in Table 8 in an effort to simplify certain trends. Shown for three broad levels of milk production are averages of milk production, herd size, and value of product per cwt., along

with changes in feed cost, feed cost per cwt. of milk, and income over feed cost for each 1,000-pound increase in milk yield.

Broad levels of milk produc- tion	Average change per 1,000- pound increase in milk within broad level						
	Herds	Milk per cow	Cows per herd	Milk price	Feed cost		Income over feed cost
					cost	per cwt. of milk	
	No.	Lb.	No.	\$/Cwt.	\$	\$	\$
Low	6,389	8,552	48	4.37	+13	-0.12	+26
Medium	8,477	12,501	42	4.23	+14	- .03	+30
High	5,309	15,948	40	4.37	+18	- .01	+38

The above summary reflects averages and trends within and between three broad herd average levels of milk yield. Although some disproportionality in milk price and feed cost probably exists among the above three groups, it is generalized that increased levels of feeding and estimated income over feed cost were economically advantageous in each of the three broad levels of production. This apparent benefit, however, was considerably greater among low level herds where maintenance requirements are proportionately greater. Within the limits of the scope and accuracy of these data, it can only be assumed that cost factors other than those associated with feeding are major contributors to production efficiency at average and high herd levels of milk yield in DHIA.

It is important to recognize that the applicability of these DHIA herd statistics to individual herds will have the greatest meaning where local feeding systems and costs and milk markets are reasonably consistent with U.S. averages. Herds of the same breed and having similar levels of milk yield may differ considerably in production efficiency if a wide range exists in milk price, feeding systems and costs, and labor and other costs.

#### OWNER-SAMPLER HERD SUMMARIES 1963-64

Summaries of Owner-Sampler herd statistics are shown in Tables 9 through 14. A total of 385,493 cows in 13,574 herds averaged 10,885 pounds of milk and 404 pounds of butterfat in 1963-64. This represents an increase of 179 pounds of milk and 8 pounds of butterfat over 1962-63. Cow-year averages by States for all data reported are given in Table 9. Similar averages based on complete reports are shown in Table 10. Stratifications of Owner-Sampler herds by butterfat production,

level of concentrates fed, and feed cost per cwt. of milk are shown in Tables 11, 12, and 13, respectively. Summaries by breed with stratification by level of milk yield are shown in Table 14.

TABLE 1.--Summary of production of Standard DHIA and non-DHIA cows

Year <sup>1/</sup>	Standard DHIA cows						All cows		Non-DHIA cows	Superiority of DHIA
	Cows	Percent of	Cows	Milk <sup>2/</sup>	Fat <sup>2/</sup>	Fat <sup>2/</sup>	Cows <sup>3/</sup>	Milk	Milk	Milk
	Number	Percent	per herd	Pounds	Pounds	Percent	Thousands	Pounds	Pounds	Pounds
1906	239	-	7.7	5,300	215	4.06	17,592	-----	-----	-----
1920	203,472	1.0	17.0	6,175	247	4.00	20,704	-----	-----	-----
1930	507,549	2.3	18.2	7,642	303	3.96	22,218	4,508	4,435	3,207
1940	676,141	2.9	24.2	8,133	331	4.07	23,671	4,622	4,519	3,614
1950	1,088,872	5.0	27.2	9,172	370	4.03	21,944	5,314	5,113	4,059
1960	1,746,752	10.0	42.3	4/10,561	4/409	4/3.87	17,560	7,002	6,606	3,955
1961	1,867,469	10.8	43.9	10,796	418	3.87	17,367	7,223	6,793	4,003
1962	1,958,355	11.5	46.6	11,032	426	3.86	17,050	7,391	6,919	4,113
1963	2,006,534	12.1	47.8	11,286	434	3.85	5/16,538	5/7,545	5/7,028	5/4,258
1964	2,010,144	12.5	49.4	11,685	447	3.83	6/16,072	-----	-----	-----

1/ The year for which the January 1 Standard cow enrollment is given.

2/ Cow-year production for the year stated for herds reported to the national office.

3/ Average number of milk cows on farms during the year, excluding heifers not fresh; estimated by the Statistical Reporting Service.

4/ Average of 1959 and 1961 because of change in national testing year in 1960.

5/ Estimated from early reports by the Statistical Reporting Service; subject to change when final data are received.

6/ Number of milk cows in United States in June 1964; estimated by Statistical Reporting Service.

TABLE 2.--A 10-year summary of DHIA cow-year averages for herds reporting complete information

Year	Herds	Cows	Cows	Milk	Fat	Fat	Conc.	Succ.	Dry	Days	Value	Cost	Feed	Income
	No.	No.	per herd	Lb.	Pct.	Lb.	fed	forage	forage	on	of	of	cost	over
			No.				Cwt.	Cwt.	Cwt.	No.	\$	\$	\$	\$
1954-55	28,727	822,465	28.6	9,261	3.94	365	28	60	37	178	429	89	183	246
1955-56	28,254	849,344	30.1	9,470	3.93	372	29	64	39	174	433	86	181	252
1956-57	27,133	863,275	31.8	9,621	3.92	377	30	66	39	173	448	88	183	265
1957-58	27,525	900,269	32.7	9,787	3.91	383	31	69	40	171	462	92	190	272
1958-59	27,796	902,074	32.5	10,042	3.89	391	33	75	40	174	475	93	195	280
1959-60 1/	23,220	795,892	34.3	10,045	3.89	391	33	76	40	169	479	93	196	283
1960-61	18,644	689,710	37.0	10,048	3.88	390	32	78	39	163	485	94	198	287
1961-62	22,853	882,827	38.6	10,676	3.87	413	36	82	40	165	502	103	207	295
1962-63	27,093	1,089,290	40.2	10,983	3.85	423	39	92	40	156	501	113	222	279
1963-64	27,893	1,173,099	42.1	11,428	3.84	439	42	98	38	151	521	120	237	284

1/ Average of 1958-59 and 1960-61 because of change in testing year.

TABLE 3.--Summary of 1963-64 Standard DHIA cow-year production, by States <sup>1/</sup>

State	Herd records	Cow-years	Cows per herd	Cow-year average production		
	Number		Number	Milk Pounds	Fat Percent	Fat Pounds
Alabama-----:	224	18,016	80.4	8,441	4.0	335
Alaska-----:	2	51	25.5	12,552	3.9	493
Arizona-----:	145	19,522	134.6	12,533	3.6	457
Arkansas-----:	65	3,058	47.0	9,603	3.7	355
California-----:	1,842	288,993	156.9	12,666	3.8	482
Colorado-----:	191	11,211	58.7	11,789	3.7	438
Connecticut-----:	435	21,647	49.8	12,119	4.0	480
Delaware-----:	95	4,064	42.8	11,552	3.9	447
Florida-----:	98	15,945	162.7	8,749	4.1	361
Georgia-----:	300	19,909	66.4	10,123	3.9	391
Idaho-----:	457	17,375	38.0	11,110	3.9	436
Illinois-----:	1,462	55,109	37.7	11,790	3.8	451
Indiana-----:	949	33,927	35.8	11,724	3.9	458
Iowa-----:	1,545	50,906	32.9	11,349	3.8	426
Kansas-----:	646	27,443	42.5	11,512	3.8	433
Kentucky-----:	356	14,055	39.5	10,343	3.9	400
Louisiana-----:	50	3,680	73.6	7,892	3.9	309
Maine-----:	469	18,605	39.7	11,597	4.0	465
Maryland-----:	736	38,848	52.8	11,145	3.9	435
Massachusetts-----:	486	20,849	42.9	11,577	4.0	459
Michigan-----:	1,812	70,933	39.1	12,356	3.8	464
Minnesota-----:	3,205	100,242	31.3	11,253	3.7	419
Mississippi-----:	124	7,968	64.3	7,512	4.2	313
Missouri-----:	393	16,984	43.2	10,690	3.9	418
Montana-----:	70	3,199	45.7	11,341	3.7	416
Nebraska-----:	296	12,332	41.7	10,993	3.8	417
Nevada-----:	41	3,412	83.2	11,874	3.8	450
New Hampshire-----:	281	11,933	42.5	11,256	4.1	456
New Jersey-----:	476	25,227	53.0	11,856	3.9	458
New Mexico-----:	30	4,797	159.9	12,529	3.6	452
New York-----:	3,528	161,248	45.7	12,458	3.7	464
North Carolina-----:	725	38,177	52.7	11,124	3.8	421
North Dakota-----:	166	5,672	34.2	10,866	3.7	404
Ohio-----:	1,824	66,640	36.5	11,957	3.8	457
Oklahoma-----:	142	8,138	57.3	10,457	3.7	390
Oregon-----:	378	21,994	58.2	10,502	4.2	441
Pennsylvania-----:	4,450	157,314	35.4	11,996	3.9	471
Puerto Rico-----:	9	2,142	238.0	7,580	3.4	260
Rhode Island-----:	44	2,177	49.5	11,715	3.9	460
South Carolina-----:	225	18,175	80.8	9,541	4.0	383
South Dakota-----:	96	3,957	41.2	10,899	3.6	391
Tennessee-----:	444	22,490	50.7	9,354	4.1	382
Texas-----:	297	22,638	76.2	10,195	3.7	380
Utah-----:	359	15,822	44.1	12,330	3.7	459
Vermont-----:	886	40,767	46.0	10,828	4.0	435
Virginia-----:	1,014	57,352	56.6	11,364	3.8	434
Washington-----:	674	37,508	55.6	12,012	3.9	472
West Virginia-----:	217	9,217	42.5	10,233	3.8	392
Wisconsin-----:	2,903	113,829	39.2	11,850	3.8	446
Wyoming-----:	27	978	36.2	11,066	3.6	402
Total or average-----:	35,689	1,746,475	48.9	11,685	3.8	447

<sup>1/</sup> Includes all production data reported.

TABLE 4.--Summary of 1963-64 Standard DHIA records, by States <sup>1/</sup>

State	Herds No.	Body weight Cwt.	Cow-years No.	Milk Lb.	Fat Pct.	Fat Lb.	Days in milk Pct.	Concen- trates fed Cwt.	Succ. forage fed Cwt.	Dry forage fed Cwt.	Value of product \$	Cost of concen- trates \$	Feed cost \$	Income over feed cost \$	Feed cost per cwt. milk \$
Alabama-----	223	10	17,958	8,448	4.0	335	82	43	52	17	481	135	215	266	2.55
Arkansas-----	65	11	3,058	9,603	3.7	355	83	41	27	42	428	122	213	215	2.22
Connecticut----	397	12	19,720	12,129	4.0	480	84	48	140	32	686	180	323	363	2.66
Delaware-----	94	12	4,050	11,583	3.9	448	85	41	137	19	588	125	284	304	2.45
Florida-----	91	10	14,548	8,726	4.2	364	84	49	43	20	590	156	241	349	2.76
Georgia-----	289	11	19,408	10,129	3.9	392	83	42	75	18	606	136	234	372	2.31
Idaho-----	318	11	11,707	11,115	4.0	441	85	28	63	79	432	77	194	238	1.74
Illinois-----	1,438	12	54,306	11,790	3.8	451	85	40	82	41	456	94	191	265	1.62
Indiana-----	948	12	33,866	11,724	3.9	458	85	40	101	36	482	97	209	273	1.78
Iowa-----	1,533	12	50,309	11,354	3.8	427	85	43	88	42	408	99	175	233	1.54
Kansas-----	636	12	27,034	11,513	3.8	433	85	45	111	39	468	118	217	251	1.89
Kentucky-----	338	11	19,326	10,333	3.9	400	83	36	69	31	447	104	202	245	1.96
Louisiana-----	47	10	3,389	7,973	3.9	308	78	35	44	14	459	114	183	276	2.29
Maine-----	468	12	18,585	11,596	4.0	465	85	43	62	49	599	158	272	327	2.35
Maryland-----	577	12	29,512	11,223	3.9	442	85	42	126	24	544	131	289	255	2.57
Massachusetts---	474	12	20,249	11,595	3.9	457	84	45	107	42	676	167	316	360	2.72
Michigan-----	1,739	12	67,998	12,372	3.8	465	87	43	98	45	505	68	200	305	1.61
Minnesota-----	3,105	12	97,290	11,258	3.7	419	85	40	87	50	392	79	155	237	1.38
Mississippi-----	121	10	7,759	7,529	4.2	315	81	33	68	14	389	103	170	219	2.26
Missouri-----	379	12	16,128	10,682	3.9	418	84	39	67	33	442	103	197	245	1.84
Montana-----	44	13	1,998	11,418	3.6	415	86	35	51	86	490	81	188	302	1.65
Nebraska-----	286	12	11,954	11,014	3.8	416	85	41	112	48	433	104	190	243	1.72
New Hampshire---	281	11	11,933	11,256	4.1	456	84	40	84	48	607	148	292	315	2.59
New Jersey-----	378	12	20,164	11,816	3.9	456	84	41	150	32	622	139	308	314	2.60
New York-----	3,525	12	161,162	12,459	3.7	464	84	41	112	43	562	138	258	304	2.07
North Carolina---	714	12	37,258	11,054	3.8	419	85	44	158	13	627	148	294	333	2.66
North Dakota----	161	13	5,460	10,906	3.7	406	77	36	98	46	402	76	148	254	1.36
Ohio-----	1,476	12	53,018	11,952	3.8	458	86	43	111	40	499	108	241	258	2.02
Oklahoma-----	141	11	8,131	10,459	3.7	390	82	42	56	47	486	115	218	268	2.08
Oregon-----	18	10	843	9,399	4.5	422	86	32	40	50	489	101	216	273	2.29
Pennsylvania---	4,427	11	156,243	11,985	3.9	470	--	45	99	38	563	138	276	287	2.30
Puerto Rico-----	8	12	1,946	7,753	3.4	267	75	38	50	--	603	136	205	398	2.64
Rhode Island----	42	12	2,026	11,800	3.9	461	85	46	153	32	754	176	367	387	3.11
South Carolina---	221	11	18,009	9,550	4.0	384	83	38	107	17	550	120	228	322	2.39
South Dakota----	95	13	3,931	10,871	3.6	390	83	39	91	53	431	86	158	273	1.45
Tennessee-----	441	11	22,320	9,371	4.1	382	84	34	88	23	463	103	204	259	2.18
Texas-----	281	11	21,160	10,185	3.7	380	82	47	54	40	505	135	245	260	2.41
Vermont-----	863	11	39,843	10,844	4.0	435	84	36	66	46	527	134	248	279	2.28
Virginia-----	996	12	56,363	11,393	3.8	435	85	43	126	26	585	142	290	295	2.55
Washington-----	3	11	212	10,584	3.8	407	--	27	79	30	485	87	200	285	1.89
West Virginia---	211	12	8,950	10,281	3.8	394	84	37	85	31	488	116	236	252	2.29
Wyoming-----	1	14	41	11,067	3.5	382	82	31	100	57	520	66	177	343	1.60
Total or average	27,893	12	1,173,099	11,428	3.8	439	84	42	98	38	521	120	237	284	2.08
Total or average <sup>2/</sup> ----	35,689		1,746,475	11,685	3.8	447									

<sup>1/</sup> Cow-year basis, based on complete individual herd reports.<sup>2/</sup> Based on all data reported in Table 3.

TABLE 5.--Summary of 1963-64 Standard DHIA yearly herd averages, stratified by butterfat pounds <sup>1/</sup>

Grouping	Herds	Body weight	Cow-years	Milk	Fat	Fat	Days in milk	Concen- trates fed	Succ. forage fed	Dry forage fed	Value of product	Cost of concen- trates	Feed cost	Income over feed cost	Feed cost per cwt. milk
Lb.	No.	Cwt.	No.	Lb.	Pct.	Lb.	Pct.	Cwt.	Cwt.	Cwt.	\$	\$	\$	\$	\$
125-174	13	10	43.7	3,815	4.1	156	62	19	44	26	194	56	121	73	3.14
175-224	75	10	65.8	5,414	3.8	208	71	25	48	25	255	71	138	117	2.57
225-274	364	11	53.6	6,626	3.9	256	77	28	57	30	310	81	162	148	2.47
275-324	1,161	11	46.8	7,880	3.9	304	81	32	66	34	353	88	176	177	2.26
325-374	3,188	11	44.0	9,124	3.9	353	83	35	74	38	401	96	193	208	2.13
375-424	6,092	12	42.5	10,400	3.9	401	84	39	83	40	453	106	211	242	2.05
425-474	7,602	12	41.7	11,718	3.8	449	85	42	91	41	512	118	232	280	2.00
475-524	5,811	12	40.5	13,010	3.8	497	86	46	98	42	574	131	256	318	1.98
525-574	2,751	12	39.8	14,208	3.8	545	87	50	105	42	637	145	279	358	1.97
575-624	680	12	39.0	15,308	3.9	594	87	53	109	43	697	157	295	402	1.94
625-674	127	13	40.7	16,551	3.9	643	88	58	118	44	782	177	326	456	1.98
675-724	27	12	37.7	17,749	3.9	689	89	60	104	49	835	192	363	472	2.05
725-774	2	13	14.5	18,012	4.1	735	91	58	131	57	811	139	306	505	1.70
Total or average	27,893	12	42.1	11,517	3.8	443	85	42	89	40	508	118	231	277	2.04

<sup>1/</sup> All groupings and the total or average line are on a herd basis.

TABLE 6.--Summary of 1963-64 Standard DHIA yearly herd averages, stratified by cwt. concentrates fed <sup>1/</sup>

Grouping	Herds	Body weight	Cow-years	Milk	Fat	Fat	Days in milk	Concen- trates fed	Succ. forage fed	Dry forage fed	Value of product	Cost of concen- trates	Feed cost	Income over feed cost	Feed cost per cwt. milk
Cwt.	No.	Cwt.	No.	Lb.	Pct.	Lb.	Pct.	Cwt.	Cwt.	Cwt.	\$	\$	\$	\$	\$
No Rept.	3	12	20.3	7,578	3.8	290	85	--	77	70	364	---	146	218	1.78
Under 5	2	12	46.6	11,273	3.8	434	87	1	161	41	515	4	137	378	1.17
05-14	64	11	41.9	8,156	3.9	319	78	12	89	51	329	38	140	189	1.81
15-24	1,038	11	41.0	8,494	4.1	347	82	22	67	42	371	62	157	214	1.92
25-34	6,099	11	43.0	9,964	4.0	398	84	30	81	40	442	85	190	252	1.96
35-44	10,152	12	42.4	11,428	3.9	440	85	39	91	40	502	111	225	277	2.01
45-54	7,224	12	41.4	12,570	3.8	473	85	49	96	41	552	138	258	294	2.08
55-64	2,556	12	40.1	13,293	3.7	496	86	58	93	40	589	165	287	302	2.19
65-74	619	12	43.5	13,593	3.7	503	86	68	88	37	608	189	305	303	2.27
75-84	115	12	50.9	13,977	3.7	520	86	78	80	39	652	221	336	316	2.44
85-Up	21	12	62.3	13,205	3.7	495	86	87	65	33	672	257	354	318	2.69
Total or average	27,893	12	42.1	11,517	3.8	443	85	42	89	40	508	118	231	277	2.04

<sup>1/</sup> All groupings and the total or average line are on a herd basis.

TABLE 7.--Summary of 1963-64 Standard DHIA yearly herd averages, stratified by feed cost per cwt. milk <sup>1/</sup>

Grouping	Herds	Body weight	Cow-years	Milk	Fat	Fat	Days in milk	Concen- trates fed	Succ. forage fed	Dry forage fed	Value of product	Cost of concen- trates	Feed cost	Income over feed cost	Feed cost per cwt. milk
Cents	No.	Cwt.	No.	Lb.	Pct.	Lb.	Pct.	Cwt.	Cwt.	Cwt.	\$	\$	\$	\$	\$
Under 175	8,986	12	35.3	12,046	3.7	449	85	40	78	45	455	86	174	281	1.45
175-224	9,451	12	41.9	11,747	3.8	449	85	42	90	41	518	120	234	284	1.99
225-274	6,704	12	47.0	11,163	3.9	439	84	44	96	37	553	143	275	278	2.46
275-324	2,185	11	52.1	10,161	4.1	417	83	44	107	34	548	151	298	250	2.93
325-374	480	11	55.5	8,893	4.3	380	82	43	107	35	500	151	304	196	3.43
375-424	61	11	49.6	8,224	4.4	364	82	43	104	40	499	153	324	175	3.94
425-474	22	11	61.9	6,912	4.6	320	78	38	116	37	406	134	308	98	4.46
475-Up	4	10	48.1	4,758	4.6	220	60	24	77	36	281	86	234	47	4.91
Total or average	27,893	12	42.1	11,517	3.8	443	85	42	89	40	508	118	231	277	2.04

<sup>1/</sup> All groupings and the total or average line are on a herd basis.

TABLE 8.--Summary of 1963-64 Standard DHIA yearly herd averages by breed, stratified by milk pounds <sup>1/</sup>

Grouping Lb.	Herds No.	Body weight Cwt.	Cow-years No.	Milk Lb.	Fat Pct.	Fat Lb.	Days in milk Pct.	Concen- trates fed Cwt.	Succ. forage fed Cwt.	Dry forage fed Cwt.	Value of product \$	Cost of concen- trates \$	Feed cost \$	Income over feed cost \$	Feed cost per cwt. milk \$
<b>AYRSHIRE</b>															
Under 7,500	25	11	31.2	6,704	4.0	269	79	31	55	34	291	86	164	127	2.46
7,500- 8,499	53	11	35.4	8,049	4.0	324	81	31	64	34	373	92	185	188	2.29
8,500- 9,499	123	11	39.7	9,002	4.1	366	82	33	65	39	420	102	199	221	2.21
9,500-10,499	149	11	38.3	10,033	4.0	406	84	38	70	41	468	116	222	246	2.22
10,500-11,499	103	11	41.2	11,016	4.0	445	84	41	74	43	521	129	242	279	2.20
11,500-12,499	48	11	37.6	11,878	4.0	472	86	45	82	41	551	145	258	293	2.17
12,500-Up	21	12	34.4	12,998	4.0	515	86	48	91	41	586	150	270	316	2.08
Total or average	522	11	38.3	9,912	4.0	400	83	37	70	40	461	116	219	242	2.22
<b>GUERNSEY</b>															
Under 5,500	24	10	74.6	5,033	4.6	233	73	24	65	18	274	73	152	123	3.02
5,500- 6,499	68	10	48.4	6,095	4.7	289	79	28	55	29	326	79	164	162	2.69
6,500- 7,499	226	10	42.0	7,128	4.8	342	83	31	67	32	374	88	180	194	2.52
7,500- 8,499	508	10	41.2	8,038	4.8	386	85	32	64	34	418	92	188	230	2.34
8,500- 9,499	695	10	42.7	8,991	4.8	432	85	35	72	36	471	101	204	267	2.28
9,500-10,499	461	10	37.2	9,959	4.8	477	87	39	69	39	520	113	222	298	2.23
10,500-11,499	204	11	39.4	10,917	4.7	516	87	42	71	38	575	126	238	337	2.18
11,500-12,499	52	11	38.7	11,838	4.6	541	88	43	68	45	594	124	241	353	2.04
12,500-Up	9	12	37.1	13,748	4.3	585	87	49	62	45	648	130	240	409	1.75
Total or average	2,247	10	41.3	8,917	4.8	426	85	36	68	36	466	102	204	262	2.31
<b>HOLSTEIN</b>															
Under 5,500	50	11	58.5	5,985	3.6	218	73	25	71	28	272	73	154	118	2.57
5,500- 7,499	145	11	51.8	7,095	3.7	260	77	30	62	31	326	83	171	155	2.41
7,500- 8,499	353	12	45.3	8,069	3.7	299	81	31	74	34	353	87	178	175	2.21
8,500- 9,499	893	12	44.8	9,066	3.7	334	82	34	80	39	391	93	191	200	2.11
9,500-10,499	1,876	12	42.9	10,062	3.7	370	83	37	87	40	426	100	204	222	2.03
10,500-11,499	3,072	12	42.9	11,037	3.7	405	84	40	94	41	465	109	219	246	1.98
11,500-12,499	4,248	12	42.3	12,016	3.7	441	85	43	97	43	506	116	232	274	1.93
12,500-13,499	4,229	12	41.6	12,986	3.7	478	85	45	101	43	553	126	248	305	1.91
13,500-14,499	3,097	12	41.2	13,949	3.7	514	86	48	105	43	600	137	266	334	1.91
14,500-15,499	1,502	13	40.0	14,927	3.7	548	86	51	103	45	643	147	280	363	1.88
15,500-16,499	527	13	38.1	15,890	3.7	582	87	54	104	45	684	156	291	393	1.83
16,500-17,499	143	13	39.4	16,881	3.7	620	88	57	107	46	744	164	308	436	1.82
17,500-Up	40	13	40.7	18,094	3.7	663	89	63	111	46	817	186	338	479	1.87
Total or average	20,175	12	42.1	12,298	3.7	452	85	43	97	42	524	121	238	286	1.95
<b>JERSEY</b>															
Under 5,500	48	9	44.4	4,871	5.1	248	74	24	35	25	255	66	126	129	2.58
5,500- 6,499	132	9	47.0	6,067	5.1	307	81	28	51	28	322	79	153	169	2.53
6,500- 7,499	357	9	46.0	7,034	5.2	363	83	31	52	29	376	89	170	206	2.42
7,500- 8,499	481	9	44.1	8,020	5.1	413	85	34	56	33	430	99	187	243	2.33
8,500- 9,499	390	9	42.0	8,946	5.1	460	86	37	53	34	482	114	203	279	2.27
9,500-10,499	141	9	45.8	9,899	5.1	503	87	41	63	34	552	134	235	317	2.37
10,500-11,499	33	9	46.5	10,850	4.9	536	87	42	66	36	589	140	249	340	2.29
11,500-Up	13	10	39.3	12,394	4.4	540	88	44	83	39	593	123	249	343	2.01
Total or average	1,595	9	44.4	8,029	5.1	411	84	34	54	32	432	102	188	244	2.36
<b>BROWN SWISS</b>															
Under 7,500	19	12	30.4	6,964	4.1	282	78	28	59	33	282	67	142	140	2.04
7,500- 8,499	44	13	28.3	8,036	4.0	321	80	33	60	46	306	75	158	148	1.97
8,500- 9,499	91	12	29.4	9,010	4.1	366	83	37	77	42	373	91	185	188	2.06
9,500-10,499	146	12	30.6	9,966	4.1	409	84	39	81	47	422	98	198	224	1.98
10,500-11,499	153	13	31.2	10,998	4.1	453	85	42	78	44	462	108	212	250	1.93
11,500-12,499	116	13	32.8	11,926	4.1	487	87	45	87	49	511	117	234	277	1.96
12,500-13,499	54	13	29.6	12,884	4.2	536	87	46	81	51	552	119	238	314	1.84
13,500-Up	18	13	32.8	13,953	4.1	567	88	51	82	43	614	142	256	358	1.84
Total or average	641	13	30.8	10,567	4.1	433	85	41	79	46	445	104	207	238	1.96

TABLE 8.--Summary of 1963-64 Standard DHIA yearly herd averages by breed, stratified by milk pounds <sup>1/</sup>--Continued

Grouping Lb.	Herds No.	Body weight Cwt.	Cow-years No.	Milk Lb.	Fat Pct.	Fat Lb.	Days in milk Pct.	Concen- trates fed Cwt.	Succ. forage fed Cwt.	Dry forage fed Cwt.	Value of product \$	Cost of concen- trates \$	Feed cost \$	Income over feed cost \$	Feed cost per cwt. milk \$
<b>MILKING SHORTHORN</b>															
4,500- 5,499	1	11	35.4	4,938	3.5	171	56	27	--	77	222	81	171	51	3.46
5,500- 6,499	9	12	25.2	5,958	3.8	226	73	25	47	37	222	59	143	79	2.39
6,500- 7,499	18	12	27.8	7,146	3.8	270	78	29	43	48	273	79	172	101	2.40
7,500- 8,499	37	12	22.5	8,137	3.8	308	81	31	52	39	291	70	146	145	1.79
8,500- 9,499	30	12	22.9	9,001	3.8	342	82	33	39	49	346	82	172	174	1.91
9,500-10,499	16	13	22.1	9,987	3.7	370	85	37	38	46	345	87	158	187	1.58
10,500-11,499	7	12	25.9	10,981	3.7	401	84	32	57	37	410	70	161	249	1.46
11,500-12,499	2	13	29.6	12,018	3.9	470	86	51	113	32	487	134	249	238	2.06
Total or average	120	12	23.9	8,491	3.8	320	81	32	46	44	314	77	160	154	1.93
<b>MIXED BREEDS</b>															
Under 5,500	28	10	61.4	4,815	4.3	208	72	25	37	23	257	74	139	118	2.93
5,500- 6,499	46	10	65.9	6,130	4.2	260	79	28	40	23	325	85	158	167	2.58
6,500- 7,499	134	10	52.9	7,023	4.2	294	81	30	51	29	358	90	175	183	2.50
7,500- 8,499	247	11	60.1	8,032	4.2	337	83	35	64	28	411	104	194	217	2.42
8,500- 9,499	344	11	47.6	9,026	4.1	374	84	37	67	32	444	109	212	232	2.35
9,500-10,499	467	11	48.6	9,998	4.0	403	85	39	76	34	484	117	228	256	2.28
10,500-11,499	439	11	43.2	10,990	3.9	432	86	42	83	37	516	128	247	269	2.25
11,500-12,499	394	11	38.2	11,964	3.9	462	86	45	88	37	548	134	260	288	2.18
12,500-13,499	268	11	36.7	12,955	3.8	495	87	47	94	39	584	139	274	310	2.12
13,500-14,499	156	11	36.0	13,920	3.8	528	88	49	101	41	630	150	291	339	2.09
14,500-15,499	37	11	38.7	14,977	3.8	566	88	55	101	41	694	163	299	395	2.00
15,500-Up	19	11	28.6	16,213	3.7	601	90	57	117	41	708	158	312	396	1.93
Total or average	2,579	11	45.4	10,531	4.0	417	84	41	78	35	499	122	236	263	2.27

<sup>1/</sup> All groupings and the total or average line are on a herd basis.

TABLE 9.--Summary of 1963-64 Owner-Sampler cow-year production, by States <sup>1/</sup>

State	Herd records	Cow-years	Cows per herd	Cow-year average production		
	Number			Milk Pounds	Fat Percent	Fat Pounds
Arizona-----:	4	280	70.0	12,057	3.8	460
Arkansas-----:	26	955	36.7	9,152	3.7	340
Colorado-----:	17	513	30.2	10,770	3.8	414
Idaho-----:	6	194	32.3	12,092	3.6	430
Illinois-----:	323	9,674	30.0	11,617	3.7	430
Indiana-----:	228	6,127	26.9	10,988	3.9	433
Iowa-----:	864	20,402	23.6	11,120	3.7	410
Kansas-----:	43	1,240	28.8	10,663	3.7	398
Maryland-----:	9	341	37.9	9,066	3.8	343
Minnesota-----:	965	24,318	25.2	10,646	3.6	388
Missouri-----:	5	127	25.4	8,787	4.4	386
Montana-----:	11	552	50.2	10,922	3.8	414
Nebraska-----:	59	2,052	34.8	11,040	3.6	399
Nevada-----:	2	92	46.0	10,555	4.4	461
North Dakota-----:	23	595	25.9	9,797	3.7	359
Ohio-----:	535	13,460	25.2	11,207	3.8	422
Oklahoma-----:	13	586	45.1	10,705	3.7	392
Oregon-----:	15	481	32.1	8,160	4.7	381
Pennsylvania-----:	1,096	30,100	27.5	11,089	3.9	427
Rhode Island-----:	1	13	13.0	10,200	4.1	417
South Dakota-----:	33	953	28.9	10,007	3.5	353
Utah-----:	17	484	28.5	11,114	3.9	429
Vermont-----:	139	4,620	33.2	8,997	4.2	378
Washington-----:	18	446	24.8	10,999	3.9	433
West Virginia-----:	10	440	44.0	8,609	4.0	346
Wisconsin-----:	9,095	265,728	29.2	10,875	3.7	400
Wyoming-----:	17	720	42.4	10,561	3.5	367
Total or average-----:	13,574	385,493	28.4	10,885	3.7	404

<sup>1/</sup> Includes all production data reported.

TABLE 10.--Summary of 1963-64 Owner-Sampler DHIA records, by States <sup>1/</sup>

State	Herds No.	Body weight Cwt.	Cow-years No.	Milk Lb.	Fat Pct.	Fat Lb.	Days in milk Pct.	Concentrates fed Cwt.	Succ. forage fed Cwt.	Dry forage fed Cwt.	Days on pasture No.	Value of product \$	Cost of concentrates \$	Feed cost \$	Income over feed cost \$	Feed cost per cwt. milk \$
Arkansas-----:	26	10	955	9,152	3.7	340	82	38	34	37	195	400	112	193	207	2.10
Illinois-----:	171	12	4,897	11,869	3.7	440	85	40	71	43	154	433	89	183	250	1.54
Indiana-----:	44	12	1,086	12,331	3.8	463	85	43	91	36	135	473	105	221	252	1.80
Iowa-----:	498	12	12,130	11,019	3.7	403	83	41	63	45	149	368	91	163	205	1.48
Kansas-----:	43	12	1,240	10,663	3.7	398	83	41	83	39	183	402	107	201	201	1.88
Minnesota-----:	818	12	20,296	10,653	3.6	387	83	38	84	51	114	354	75	151	203	1.42
Missouri-----:	5	10	127	8,787	4.4	386	85	33	43	35	208	329	77	148	181	1.69
Nebraska-----:	22	12	739	10,636	3.7	391	84	38	90	47	118	385	100	178	207	1.67
North Dakota-----:	19	12	504	9,784	3.6	353	80	32	62	49	149	325	59	118	207	1.21
Ohio-----:	248	12	6,640	11,248	3.8	426	85	41	87	42	129	458	99	222	236	1.97
Oklahoma-----:	13	11	586	10,705	3.7	392	83	47	67	42	150	477	119	209	268	1.96
Pennsylvania-----:	1,093	11	30,020	11,095	3.9	428	--	41	85	40	157	498	130	260	238	2.35
South Dakota-----:	33	12	953	10,007	3.5	353	80	36	73	43	141	351	78	138	213	1.38
Total or average <sup>2/</sup> -----:	3,033	12	80,172	10,987	3.7	411	83	40	80	44	143	427	103	204	223	1.86
Total or av. <sup>2/</sup> -----: 13,574 385,493 10,885 3.7 404																

<sup>1/</sup> Cow-year basis, based on complete individual herd reports only.

<sup>2/</sup> Based on all data reported in Table 9.

TABLE 11.--Summary of 1963-64 Owner-Sampler DHIA yearly herd averages, stratified by butterfat pounds <sup>1/</sup>

Grouping	Herds	Body weight	Cow-years	Milk	Fat	Fat	Days in milk	Concentrates fed	Succ. forage fed	Dry forage fed	Days on pasture	Value of product	Cost of concentrates	Feed cost	Income over feed cost	Feed cost per cwt. milk
Lb.	No.	Cwt.	No.	Lb.	Pct.	Lb.	Pct.	Cwt.	Cwt.	Cwt.	No.	\$	\$	\$	\$	\$
175-224	8	11	27.3	5,665	3.7	210	71	21	48	45	195	212	50	130	82	2.30
225-274	43	11	26.9	6,954	3.7	259	78	26	54	42	164	245	61	133	112	1.92
275-324	217	11	26.6	8,101	3.8	304	80	31	60	45	153	297	75	158	139	1.98
325-374	602	11	25.8	9,440	3.7	352	82	35	67	45	147	345	84	171	174	1.83
375-424	895	12	26.6	10,687	3.7	400	84	39	72	45	145	402	96	192	210	1.81
425-474	789	12	26.2	11,942	3.8	448	85	44	75	45	148	463	114	219	244	1.85
475-524	357	12	27.3	13,076	3.8	495	86	48	85	43	149	531	128	245	286	1.89
525-574	102	12	26.1	14,106	3.8	542	86	52	79	46	144	589	149	275	314	1.96
575-624	16	12	29.3	15,080	3.9	590	88	52	105	44	109	650	146	279	371	1.85
625-674	3	13	14.7	16,850	3.8	637	87	54	44	67	165	622	127	250	372	1.50
675-724	1	12	26.6	18,322	3.9	718	--	59	122	65	151	805	227	400	405	2.18
Total or average	3,033	12	26.4	10,943	3.8	411	83	40	72	45	147	419	102	201	218	1.86

<sup>1/</sup> All groupings and the total or average line are on a herd basis.

TABLE 12.--Summary of 1963-64 Owner-Sampler DHIA yearly herd averages, stratified by cwt. concentrates fed <sup>1/</sup>

Grouping	Herds	Body weight	Cow-years	Milk	Fat	Fat	Days in milk	Concentrates fed	Succ. forage fed	Dry forage fed	Days on pasture	Value of product	Cost of concentrates	Feed cost	Income over feed cost	Feed cost per cwt. milk
Cwt.	No.	Cwt.	No.	Lb.	Pct.	Lb.	Pct.	Cwt.	Cwt.	Cwt.	No.	\$	\$	\$	\$	\$
No Rept.	1	11	21.6	9,102	3.8	344	81	--	81	62	153	302	---	80	222	.88
Under 5	1	11	33.4	5,558	4.0	224	--	4	142	6	238	280	14	115	165	2.07
05-14	9	12	22.6	7,707	3.6	278	78	12	63	54	127	245	24	97	148	1.29
15-24	128	11	27.0	8,387	3.9	325	82	21	69	46	148	314	51	136	178	1.69
25-34	761	11	26.9	9,757	3.8	373	83	30	70	44	153	369	76	169	200	1.76
35-44	1,127	12	26.9	10,991	3.8	413	84	39	75	44	148	423	99	199	224	1.84
45-54	737	12	25.7	11,937	3.7	444	84	49	73	46	143	460	125	230	230	1.94
55-64	218	12	24.9	12,588	3.7	464	84	58	71	47	136	487	149	256	231	2.05
65-74	42	12	25.5	13,301	3.7	489	84	68	68	43	135	523	173	275	248	2.10
75-84	9	12	27.9	13,248	3.5	469	86	77	42	49	140	464	167	246	218	1.86
Total or average	3,033	12	26.4	10,943	3.8	411	83	40	72	45	147	419	102	201	218	1.86

<sup>1/</sup> All groupings and the total or average line are on a herd basis.

TABLE 13.--Summary of 1963-64 Owner-Sampler DHIA yearly herd averages, stratified by feed cost per cwt. milk <sup>1/</sup>

Grouping	Herds	Body weight	Cow-years	Milk	Fat	Fat	Days in milk	Concentrates fed	Succ. forage fed	Dry forage fed	Days on pasture	Value of product	Cost of concentrates	Feed cost	Income over feed cost	Feed cost per cwt. milk
Cents	No.	Cwt.	No.	Lb.	Pct.	Lb.	Pct.	Cwt.	Cwt.	Cwt.	No.	\$	\$	\$	\$	\$
Under 175	1,502	12	25.4	11,084	3.7	405	84	39	67	47	143	375	81	156	219	1.41
175-224	816	12	27.8	11,102	3.8	423	83	42	77	43	148	455	113	221	234	1.99
225-274	500	11	26.9	10,795	3.9	418	83	43	80	42	157	478	132	265	213	2.46
275-324	186	11	27.1	9,878	4.0	393	83	43	78	47	152	463	142	290	173	2.94
325-374	23	11	30.2	8,897	4.0	359	84	41	88	47	129	429	139	304	125	3.41
375-424	6	11	33.2	6,975	4.2	294	--	38	72	57	145	342	119	270	72	3.88
Total or average	3,033	12	26.4	10,943	3.8	411	83	40	72	45	147	419	102	201	218	1.86

<sup>1/</sup> All groupings and the total or average line are on a herd basis.

TABLE 14.--Summary of 1963-64 Owner-Sampler DHIA yearly herd averages by breed, stratified by milk pounds <sup>1/</sup>

Grouping Lb.	Herds No.	Body weight Cwt.	Cow-years No.	Milk Lb.	Fat Pct.	Fat Lb.	Days in milk Fct.	Concen- trates fed Cwt.	Succ. forage fed Cwt.	Dry forage fed Cwt.	Days on pasture No.	Value of product \$	Cost of concen- trates \$	Feed cost \$	Income over feed cost \$	Feed cost per cwt. milk \$
<b>AYRSHIRE</b>																
Under 6,500	2	11	34.3	5,865	3.8	224	--	21	53	34	154	245	66	154	91	2.67
6,500-7,499	3	11	25.5	7,153	4.0	284	73	38	45	36	184	271	104	191	80	2.66
7,500-8,499	5	11	17.0	8,209	3.9	322	81	35	45	44	193	270	70	130	140	1.58
8,500-9,499	7	11	22.0	9,107	4.2	380	83	34	89	37	156	385	93	205	180	2.25
9,500-10,499	1	10	12.7	9,504	4.1	385	75	42	45	7	365	272	117	176	96	1.85
10,500-11,499	5	11	32.4	10,903	3.9	429	84	47	51	42	159	451	120	214	237	1.97
11,500-Up	2	12	29.7	13,222	3.8	501	87	46	70	75	31	559	96	252	307	1.92
Total or average	25	11	24.7	9,138	4.0	364	82	38	61	41	166	360	94	188	172	2.10
<b>GUERNSEY</b>																
Under 6,500	10	10	21.7	6,061	4.7	283	80	26	25	47	183	249	61	141	108	2.33
6,500-7,499	30	10	23.2	7,088	4.7	332	84	29	46	40	144	317	75	152	165	2.14
7,500-8,499	50	10	24.0	8,042	4.7	379	85	33	37	41	170	337	78	148	189	1.84
8,500-9,499	43	10	25.2	8,918	4.6	412	85	36	61	37	163	412	91	182	230	2.04
9,500-10,499	20	11	25.4	9,878	4.5	442	85	41	57	40	168	431	103	188	243	1.90
10,500-11,499	13	11	25.9	10,847	4.3	467	84	40	66	43	162	473	103	217	256	2.00
11,500-Up	3	11	26.2	12,511	3.8	470	85	44	81	48	156	578	123	254	324	2.04
Total or average	169	10	24.4	8,491	4.6	389	84	34	49	40	162	373	86	169	204	2.00
<b>HOLSTEIN</b>																
Under 6,500	7	10	27.9	5,743	3.9	221	78	23	32	46	200	208	51	119	89	2.07
6,500-7,499	24	11	21.1	7,168	3.7	268	78	26	47	46	168	238	54	121	117	1.69
7,500-8,499	69	11	29.1	8,102	3.6	293	79	30	69	46	144	284	68	147	137	1.82
8,500-9,499	170	12	26.6	9,091	3.7	332	81	32	69	47	147	317	72	153	164	1.68
9,500-10,499	340	12	25.6	10,026	3.6	364	82	37	70	48	141	348	83	168	180	1.68
10,500-11,499	474	12	27.5	11,005	3.6	400	83	39	79	47	134	395	91	184	211	1.67
11,500-12,499	477	12	26.3	11,989	3.6	436	85	43	78	46	141	437	105	203	234	1.69
12,500-13,499	325	12	26.7	12,933	3.6	468	85	47	78	47	143	479	115	221	258	1.71
13,500-14,499	131	12	27.9	13,879	3.6	504	85	49	79	45	147	529	125	234	295	1.69
14,500-15,499	45	12	25.3	14,916	3.6	541	86	52	71	53	131	560	132	248	312	1.67
15,500-16,499	10	13	27.7	15,755	3.6	570	86	60	81	48	130	575	135	255	320	1.62
16,500-Up	2	13	20.6	18,689	3.7	686	89	57	87	66	151	696	172	301	396	1.62
Total or average	2,074	12	26.7	11,354	3.6	413	83	41	75	47	141	411	97	192	219	1.69
<b>JERSEY</b>																
4,500-5,499	5	9	28.7	5,176	5.1	263	80	24	37	39	134	245	60	122	123	2.35
5,500-6,499	8	10	23.5	6,020	5.2	311	84	26	64	35	139	284	67	134	150	2.23
6,500-7,499	23	10	25.1	7,021	5.1	361	84	31	42	36	156	326	74	146	180	2.09
7,500-8,499	22	9	27.4	8,005	5.0	399	86	34	46	36	157	385	91	180	205	2.25
8,500-9,499	6	9	21.1	8,991	5.1	456	84	40	35	42	188	412	103	197	215	2.19
9,500-10,499	6	9	21.7	9,885	4.9	480	88	43	73	30	143	447	99	184	263	1.86
10,500-Up	2	13	15.6	11,507	4.6	526	88	50	37	48	164	394	118	230	164	2.00
Total or average	72	9	25.0	7,610	5.0	383	85	33	47	36	155	353	83	163	190	2.16
<b>BROWN SWISS</b>																
Under 7,500	2	11	26.0	6,841	3.9	266	86	31	19	37	192	217	72	121	106	1.76
7,500-8,499	5	12	18.9	8,094	4.0	323	83	39	48	36	194	286	93	157	129	1.94
8,500-9,499	15	12	20.3	8,982	4.0	358	81	39	54	51	135	310	85	156	154	1.73
9,500-10,499	12	12	22.3	9,989	4.0	398	84	42	43	52	159	360	92	172	188	1.72
10,500-11,499	14	13	20.3	10,945	4.0	435	84	44	67	50	138	399	106	193	206	1.76
11,500-12,499	4	13	21.9	11,839	3.9	457	87	37	95	47	136	440	87	186	254	1.57
12,500-Up	2	12	23.8	13,398	4.2	563	85	59	42	41	163	598	131	215	384	1.62
Total or average	54	12	21.1	9,928	4.0	395	83	41	56	48	150	359	94	172	187	1.74
<b>MIXED BREEDS</b>																
5,500-6,499	4	11	24.0	6,032	4.2	256	--	19	94	36	170	303	56	171	132	2.81
6,500-7,499	22	11	20.8	7,031	4.3	301	83	31	56	40	162	310	95	194	116	2.77
7,500-8,499	43	11	24.5	8,145	4.1	334	83	32	56	39	178	359	97	204	155	2.51
8,500-9,499	84	11	26.9	8,981	4.0	356	84	35	69	39	164	391	105	220	171	2.45
9,500-10,499	127	11	27.2	9,988	3.9	391	85	38	74	40	159	444	113	232	212	2.32
10,500-11,499	120	11	27.4	10,981	3.8	422	84	42	71	43	162	488	131	258	230	2.35
11,500-12,499	116	11	28.2	11,996	3.8	456	85	45	84	40	162	529	139	271	258	2.26
12,500-13,499	70	11	26.6	12,943	3.8	491	85	47	88	43	150	576	146	280	296	2.17
13,500-14,499	36	11	30.3	13,918	3.8	522	86	51	74	45	158	592	152	276	316	1.98
14,500-15,499	10	11	25.6	14,809	3.8	565	86	54	96	41	147	646	174	326	320	2.20
15,500-Up	3	11	13.8	16,044	3.7	598	86	53	25	62	163	538	143	259	279	1.60
Total or average	635	11	27.0	10,810	3.9	418	84	41	74	41	161	476	125	248	228	2.32

<sup>1/</sup> All groupings and the total or average line are on a herd basis.



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